

TOMBSTONE MUNICIPAL AIRPORT

Tombstone, Arizona

AIRPORT MASTER PLAN - 1999 5. ENVIRONMENTAL FACTORS

INTRODUCTION: THE ENVIRONMENTAL REVIEW PROCESS

The National Environmental Policy Act (NEPA) requires that all new airport construction be evaluated in terms of possible environmental impacts. Thus, it is important in the Master Planning process to identify the environmental issues which may need to be addressed prior to airport development.

Federal actions fall into one of three categories:

- Categorical Exclusions;
- Actions normally requiring an Environmental Assessment (EA); and
- Actions normally requiring an Environmental Impact Statement (EIS).

In general terms, actions categorically excluded are those actions which are found to have no potential for significant environmental impact. The following items would normally be categorically excluded unless extraordinary circumstances are identified by the FAA which would create a requirement for an Environmental Assessment. "Extraordinary circumstances" include opposition by federal, state or local government agencies, or by a significant number of persons who would be affected by the action, as well as any obvious circumstance which may indicate the potential for environmental impact.

- Runway reconstruction or repair work where the runway's alignment, length, capacity and classification are not affected;
- Construction or repair of taxiways, aprons or loading ramps;
- Installation or upgrade of airfield lighting systems, including runway and taxiway edge lighting systems, runway end identifier lights (REIL), visual approach aids (VASI, PAPI),



- rotating beacons, and electrical distribution systems;
- Installation of miscellaneous items including segmented circles, wind or landing direction indicators, weather stations, and fencing;
- Construction or expansion of buildings and passenger handling facilities, including general aviation arrival/departure building and hangars;
- Construction, relocation or repair of entrance and service roads;
- Obstruction removal on airport property;
- Erosion control actions with no off-airport impacts;
- Landscaping or construction of airport jet blast and/or noise mitigation barriers, as well as projects to carry out noise compatibility programs;
- Land acquisitions and/or relocations associated with any of the above listed items.

Federal release of airport land, removal of a displaced threshold, airspace determinations, airport planning projects, noise compatibility programs, acquisition of security equipment required under 14 CFR Part 107 or safety equipment required under 14 CFR Part 139, acquisition of snow removal equipment, airport certifications, and preliminary or tentative engineering or design actions are also categorically excluded.

The purpose of an Environmental Assessment is to determine whether or not an action will have one or more significant impacts. Actions normally requiring an Environmental Assessment are those which have been found by experience to sometimes have significant environmental impacts. Included actions are:

- Airport location or relocation;
- Construction of a new runway;
- Major runway extension;
- Runway strengthening which would result in a 1.5 Ldn or greater increase in noise over any noise sensitive area located within the 65 Ldn noise exposure contour;
- Entrance or service road development which would adversely affect the capacity of other public roads.
- Land acquisition associated with any of the above-listed items, or land acquisitions which result in relocation of residential units when there is evidence of insufficient replacement dwellings or major disruption of business activities;
- Land acquisition which involves land covered under Section 4(f) of the DOT Act (public owned land from a public park, recreation area or wildlife or waterfowl refuge, or a historical site of local state or national significance);
- Establishment or relocation of an instrument landing system, or an approach lighting system;
- Any action which would effect property included (or eligible for inclusion) on the National Register of Historic Places, property of state, local, or national historical, architectural, archeological, or cultural significance;

- Land acquisitions which involve significant conversion of farmland

Actions determined to have significant impacts during preparation of the Environmental Assessment will be required to be addressed by an Environmental Impact Statement (EIS).

The preparation of the Environmental Assessment is the responsibility of the airport sponsor. Based upon the results of the Environmental Assessment, the FAA would either prepare an Environmental Impact Statement (EIS) or would issue a "Finding OF No Significant Impact" (FONSI).

Federal regulations require that a sponsor seeking a grant for airport improvements must prepare and submit an Airport Layout Plan, showing detailed information regarding the existing and proposed facility, along with an Environmental Assessment prepared in accordance with FAA Order 5050.4, if an assessment is required.

There are two proposed projects under consideration for Tombstone Municipal Airport which are not "categorically excluded", and which will require preparation of an Environmental Assessment and subsequent issuance of a FONSI. These are the 1,500' extension of Runway 6-24 and the construction of a new Runway 2-20 (see Section 4: Development Alternatives).

PROBABLE
ENVIRONMENTAL
IMPACTS

The areas of potential impact which must be addressed in an Environmental Assessment, per FAA Order 5050.4 are as follows:

- A. Social Impacts
- B. Induced Socio-economic Impacts
- C. Air Quality
- D. Water Quality
- E. Impacts upon Public Recreation Areas & Historical/Cultural Resources
- F. Biotic Communities - Flora and Fauna
- G. Endangered and Threatened Species of Flora and Fauna
- H. Wetlands
- I. Floodplains
- J. Coastal Zone Management Programs and Coastal Barriers
- K. Wild and Scenic Rivers
- L. Conversion of Farmland
- M. Energy Supply and Natural Resources
- N. Light Emissions
- O. Solid Waste Impacts
- P. Construction Impacts
- Q. Noise
- R. Compatible Land Use
- S. Environmental Justice in Minority and Low-Income Populations

These areas are discussed in the following narrative.

In August of 1998, in order to identify possible areas of environmental impact associated with the proposed program, a number of public agencies were contacted, provided with review materials, and asked to provide input regarding their areas of jurisdiction. The contacted agencies are:

- Arizona Department of Environmental Quality, Office of Air Quality
- Arizona Department of Environmental Quality, Water Quality Division
- Arizona Department of Environmental Quality, Wastewater Construction & Federal Permits
- U.S. Army Corps of Engineers - Los Angeles District
- Arizona State Parks, State Historic Preservation Office
- U.S. Department of the Interior - Fish and Wildlife Service
- Arizona Game and Fish Department
- Arizona Department of Water Resources
- Arizona State Land Department
- U.S. Department of the Interior - Bureau of Land Management
- U.S. Department of Agriculture - Farm Services Agency
- U.S. Department of Agriculture - Natural Resources Conservation Service
- Arizona Department of Agriculture - Plant Services Division
- Cochise County Department of Facilities and Solid Waste Management

The responses and comments received from these agencies are included at the end of this section (see Exhibits A through H).

The analysis is as follows:

Social Impacts

Social Impacts are impacts which arise from the disruption of communities, relocation of persons, changes in employment patterns and changes in transportation patterns.

Because of the relatively limited development program, no relocation of persons, or changes in employment or major changes in transportation patterns are necessary with the proposed plan of development. Therefore, no impacts associated with the planned development are foreseen.

No agency comments were received regarding this issue.

Induced Socioeconomic Impacts

Induced Socioeconomic Impacts are secondary or indirect impacts that involve shifts in population, changes in economic climate, or shifts in levels of public service demand. The effects are directly proportional to the scope of the project under consideration.

Assessment of socioeconomic impacts is usually associated only with large scale development at larger air carrier airports, which involve major terminal building development, change of roadway alignments, and similar work. The extent of the indirect socioeconomic impacts of the proposed development is not of the magnitude that would normally be considered significant.

No agency comments were received regarding this issue.

Air Quality

The Federal Aviation Administration, through FAA Order 5050.4A, *Airport Environmental Handbook*, includes an established procedure which is followed in order to determine whether an air quality analysis is necessary for a proposed airport development action.

The initial step in this process is to determine whether the anticipated project has the potential for increasing airport operations, ground traffic, or parking capacity.

Forecasts of estimated aviation activity for the 1998 through 2020 period were developed as part of the planning process for the Tombstone Municipal Airport. Assuming that the increase in activity shown in the forecasts might indicate a potential for increased impacts to air quality, the next step in the process is the determination of whether or not the airport is within a state within direct source review (ISR).

The state of Arizona is not an ISR state. This being the case, the threshold criteria contained in the FAA Environmental Handbook (Order 5050.4A) must be examined in order to determine if an assessment of air quality is required. According to the Handbook, no air quality analysis is required if the levels of activity forecast in the time frame of the proposed action are below either of the following.

- For commercial service airports: Less than 1.3 million annual passengers and less than 180,000 annual general aviation operations.
- For general aviation airports: Less than 180,000 forecast annual operations.

For the planning year 2020, the total annual operations forecast for Tombstone Municipal Airport is about 5,800. It is evident from the number of forecasted operations that neither of these criteria will be exceeded. An air quality assessment should not be required.

The 1982 Airport Act requires that Airport Improvement Program applications for projects involving airport location, runway location, or a major runway extension shall not be approved unless the governor of the state in which the

project is located certifies that there is "reasonable assurance" that the project will be located, designed, constructed and operated in compliance with applicable air quality standards. This certification should be applied for, as part of an EA process, through the Arizona Department of Environmental Quality (ADEQ).

Coordination with the Arizona Department of Environmental Quality (ADEQ) - see Exhibit H:

The ADEQ Air Quality Division has indicated that the proposed projects do not fall within an EPA attainment area, as designated by Section 107 of the Clean Air Act. Consequently, there is neither a State Implementation Plan or a Federal Implementation Plan in place which requires specific strategies with respect to the ambient air quality in the airport area. However, the ADEQ has requested that preventative and mitigative measures be taken to minimize short term impacts to air quality that might occur during construction operations. These measures are detailed in the ADEQ's letter (Exhibit H), and are derived from applicable state rules as contained in A.A.C. R18-2-604, R18-2-605, R18-2-606 and R-18-2-607.

ADEQ has also advised that portable sources of potential air pollution such as rock, sand, gravel and asphalt plants are required to receive an ADEQ permit in order to operate within Arizona.

Water Quality

The 1982 Airport Act also requires that federal Airport Improvement Program (AIP) applications for projects involving airport location, runway location, or a major runway extension shall not be approved unless the governor of the state in which the project is located certifies that there is "reasonable assurance" that the project will be located, designed, constructed, and operated in compliance with all applicable water quality standards. As with the air quality assurance, this certification should be applied for as part of an EA process, through the Arizona Department of Environmental Quality (ADEQ).

Coordination with the Arizona Department of Environmental Quality (ADEQ) - see Exhibit E:

The ADEQ has indicated that there may be the potential for particulate and sediment pollution of nearby water bodies within the San Pedro/Willcox Playa/Rio Yaqui watershed during construction activities. The ADEQ has requested that preventative and mitigative measures be taken to minimize these potential impacts. The measures are detailed in the ADEQ's letter (Exhibit E), and are derived from applicable state rules as contained in A.A.C. R18-11-101 through R18-11-123.

ADEQ has also advised a Clean Water Act, Section 404 Permit will be required if construction activities involve channelization or earthmoving within a "water of the United States". This permit will need to be obtained from the U.S. Army Corps of Engineers prior to commencement of construction.

A federal Clean Water Act, Section 402 NPDES storm water permit must be applied for prior to commencement of construction activities if clearing, grubbing and excavation activities disturb more than five acres of land. Grading of less than five acres will also be required to be permitted if it is part of a larger development plan.

Any airport water supply systems must be developed in compliance with the ADEQ's Public and Semi-Public Water Supply Systems Rules.

Airport sewage treatment facilities must be developed in such a manner as to ensure protection of surface and ground water resources. The ADEQ advises that an Aquifer Protection Permit may be required for such facilities.

Impacts Upon
Public Recreation
Areas and
Historical/Cultural
Resources

Section 4(f) of the DOT Act states that the "*Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance as determined by officials having jurisdiction thereof unless there is no feasible and prudent alternative to the use of such land and such program or project includes all possible planning to minimize harm resulting from the use.*" Coordination with the State Historic Preservation Office, through Arizona State Parks, will be required as part of the EA process.

**Coordination with Arizona State Historic Preservation Office through
Arizona State Parks - see Exhibit G:**

The proposed improvements will have no significant impacts upon existing parks, established waterfowl/wildlife refuges or recreation areas. However, as has been noted in Section 1, the airport was originally developed in the late 1940's and has some level of historic significance in the development of aviation in the region. The Arizona State Historic Preservation Office indicates that aviation properties of this era are being considered for listing on the National Register of Historic Places. There are no existing buildings on the airport site, and the runway, taxiway and apron have been significantly improved over the years from their original "dirt-strip" configuration. Therefore, the historic integrity of the site is not intact, and it most probably will not qualify for listing on the Register.

The State Historic Preservation Office also indicates that appropriate federal and state agencies should be consulted regarding cultural resources during the development of a project.

An archeological survey is recommended as part of the EA process. In the event that there may be existing cultural resources in the development area, construction project specifications should require that projects be temporarily stopped if any cultural resources are found during construction.

Biotic
Communities -
Flora and Fauna

This section considers the impacts of proposed projects on biotic communities and has overlapping requirements with the next two sections (Threatened and Endangered Species and Wetlands). The requirements of this section are as follows.

- 1.) If a proposed project takes or impacts a publicly-owned wildlife refuge, a special study needs to be prepared. This requirement does not apply to the proposed work at Tombstone Municipal Airport.
- 2.) For any proposed project it is necessary to consider the impacts on endangered and threatened species, if any (refer to the next section).
- 3.) If the proposed project would affect water resources (i.e., wetlands, groundwater, impoundment, diversion, deepening, controlling, modifying, polluting, dredging, or filling of any stream or body of water), the Fish and Wildlife Coordination Act applies. Consultation should be initiated with both the U.S. Fish and Wildlife Service and with the Arizona Game and Fish Department. Letters should be sought and obtained from both agencies to determine if any proposed actions will damage wildlife resources and to determine mitigating measures, if necessary.

The Airport Environmental Handbook states (Page 42 - Section 9d1): "If the proposal would impact only man-dominated areas such as previously disturbed airport property, populated areas, or farmland, it may be assumed that there would be no significant impact on biotic communities." Section 9d2 states that if the project "would impact other than man-dominated areas but the impacts would be transient rather than permanent, such as dislocation or other impacts due to construction activities, it may be assumed that there would be no significant impact on biotic communities. The environmental assessment shall document the transient nature of the impacts and any mitigation measure."

Most of the proposed projects at Tombstone Municipal Airport would appear to affect only "man-dominated" areas, since they will be constructed on existing airport property. These projects would have no significant impact on biotic communities. However, the future extension of Runway 6-24 and development of a new Runway 2-20 would occur on currently undeveloped land. It is recommended that a biological assessment be performed as part of the EA process.

See the next section (Threatened and Endangered Species) for agency comments received.

Threatened and
Endangered
Species

It is necessary for any proposed project to consider the impacts on Threatened and Endangered Species. An "Endangered Species" is defined as any member of the animal or plant kingdom determined to be in danger of extinction throughout all or a significant portion of its range.

A "Threatened Species" is defined as any member of the plant or animal kingdom which are likely to become endangered in the foreseeable future.

No determination has been made as to whether any of the proposed projects would impact Threatened or Endangered Species. However, early coordination with the jurisdictional agencies has provided general information regarding the existing species that occur in the project area.

Coordination with the U.S. Department of the Interior, Fish and Wildlife Service - see Exhibit D:

The Fish and Wildlife Service has provided a list of Endangered or Threatened Species, and candidates for the list, that may be found within Cochise County. The Tombstone Municipal Airport vicinity may not necessarily include all or any of these species.

Coordination with the Arizona Department of Agriculture, Plant Services Division - see Exhibit A:

The Plant Services Division has recommended that a site survey of the project area be conducted to determine the existence of any protected plant species. This survey should be a part of the EA process for the proposed development.

Coordination with the Arizona Game and Fish Department:

Although the Arizona Game and Fish Department has not provided a response to early coordination attempts, they have recently specifically noted a county-wide concern for the Chiricahua Leopard Frog and the Desert Massasauga, a rare rattlesnake.

Wetlands

Wetlands are defined in Executive Order 11990, Protection of Wetlands, as "those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, and natural ponds."

There are no wetlands evident at the Tombstone Municipal Airport. Furthermore, the airport property does not appear to drain to a wetland.

No agency comments were received that pertain directly to impacts to wetlands.

Coordination with the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) - see Exhibit F:

The NRCS has indicated that they are not aware of any immediate impacts that would directly affect wetland areas associated with agricultural activities.

Floodplains

Floodplains are defined by Executive Order 11988, Floodplain Management, as the lowland and relatively flat areas adjoining coastal water "...including a minimum, that area subject to a one percent or greater chance of flooding in any given year...", that is, an area which would be inundated by a 100-year flood. If a proposed development involves a 100 year floodplain, mitigating measures must be investigated in order to avoid significant changes to the drainage system.

Tombstone Municipal Airport does not lie within a designated floodplain. Therefore, none of the proposed projects would impact a 100-year floodplain.

No agency comments were received regarding this issue.

Coastal Zone Management Programs and Coastal Barriers

Each state, where applicable, has initiated a Coastal Zone Management Program which encompasses the inland limits of the coastal zone as designated by the state.

Tombstone Municipal Airport is not located within or near a designated coastal zone.

No agency comments were received regarding this issue.

Wild and Scenic Rivers

The Wild and Scenic Rivers Act describes those river areas eligible for protection from development. As a general rule these rivers possess outstanding scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar value.

No rivers currently classified as Wild and Scenic are in the close proximity of Tombstone Municipal Airport.

No agency comments were received regarding this issue.

Conversion of Farmland

The Farmland Protection Policy Act (FPPA) authorizes the Department of Agriculture to develop criteria for identifying the effects of Federal programs upon the conversion of farmland to uses other than agriculture.

The proposed improvements will all be developed upon existing airport property or new land acquisitions which are not currently or potentially agricultural use

land. Therefore, no impacts to farmlands are expected.

Coordination with the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) - see Exhibit F:

The NRCS has concurred that there are no impacts to existing farmland indicated as a result of the proposed airport development actions at Tombstone's airport, as they are presented in this Master Plan.

**Energy Supply
and Natural
Resources**

For most general aviation and non-hub air carrier airport actions, changes in energy demands or other natural resource consumption will not result in significant impacts. This is the case for the proposed projects at the Tombstone Municipal Airport.

No agency comments were received regarding this issue.

Light Emissions

Aviation lighting required for the purpose of obstruction marking, security of parked aircraft and vehicles, and visual aids to navigation are the main source of light emissions emanating from airports. An analysis is necessary only if a proposal would introduce new airport lighting facilities which might affect nearby residential or other sensitive land uses.

Tombstone Municipal Airport is located in a non-residential area. The proposed lighting systems should not significantly impact adjacent land uses.

No agency comments were received regarding this issue.

**Solid Waste
Impacts**

Airport development actions which relate only to construction or expansion of runways, taxiways, and related facilities do not normally include any direct relationship to solid waste collection, control, or disposal. All of the "airside" improvements proposed for the Tombstone Municipal Airport fit into this category, so no significant impacts to solid waste generation are anticipated.

Any solid waste disposal facility (i.e., sanitary landfill, transfer station, etc.) which is located within 5,000 feet of all runways planned to be used by piston-powered aircraft, or within 10,000 feet of all runways planned to be used by turbine-powered aircraft is considered by the FAA to be an incompatible land use because of the potential for conflicts between bird habitat and low-flying aircraft. Any waste disposal facility which is located within a 5 mile radius of any runway end *"that attracts or sustains hazardous bird movements from feeding, water or roosting areas into, or across the runways and/or approach and departure patterns of aircraft"* is also considered to be incompatible. This determination is contained in paragraph 5 of FAA Order 5200.5A, FAA Guidance Concerning Sanitary Landfills On or Near Airports.

Reference to this potential hazard is also made in 40 CFR Part 257, Criteria for Classification of Solid Waste Disposal Facilities, section 257.3-8.

There are no existing or planned solid waste disposal sites within 10,000 feet of the runway at Tombstone Municipal Airport. There are no solid waste disposal facilities located within a five-mile radius of the airport.

Coordination with the Arizona Department of Environmental Quality (ADEQ) - see Exhibit E:

The ADEQ Division of Water Quality has advised that any sanitary waste facilities provided during construction phases must be planned and developed in such a manner as to ensure protection of surface and ground water resources.

Permanent airport sewage treatment facilities must be developed in such a manner as to ensure protection of surface and ground water resources. The ADEQ advises that an Aquifer Protection Permit may be required for such facilities.

**Construction
Impacts**

Any construction project will generate short-term environmental impacts. These may include noise and air pollution (dust and exhaust emissions) from construction equipment on the site and traversing nearby neighborhoods, air pollution from burning of refuse, and water pollution from erosion and increased siltation of downtown bodies of water.

All of these potential impacts can be controlled by requirements and restrictions placed in the Contract Documents and Specifications for each project.

Potential erosion and siltation should be mitigated by incorporation of applicable federal and state standards into the construction contract specifications. Typically, this involves creation and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

As a method of minimizing noise and air pollution caused by construction equipment, the contractor's equipment access should be routed to avoid the most sensitive adjacent areas and to contain the adverse impacts as much as possible to the airport property. The access routes and limitations should be defined on the construction plans and in the specifications, as appropriate.

Dust pollution should be specifically mitigated by requiring appropriate dust control measures as part of the construction specifications.

Coordination with the Arizona Department of Environmental Quality may be necessary during the development of construction plans and during the construction activities.

Coordination with the Arizona Department of Environmental Quality (ADEQ) - see Exhibits E and H:

The ADEQ Division of Air Quality has requested that preventative and mitigative measures be taken to minimize short term impacts to air quality that might occur during construction operations. These measures are detailed in the ADEQ's letter (Exhibit H), and are derived from applicable state rules as contained in A.A.C. R18-2-604, R18-2-605, R18-2-606 and R-18-2-607.

ADEQ has also advised that portable sources of potential air pollution such as rock, sand, gravel and asphalt plants are required to receive an ADEQ permit in order to operate within Arizona.

The ADEQ Division of Water Quality has indicated that there may be the potential for particulate and sediment pollution of nearby water bodies within the San Pedro/Willcox Playa/Rio Yaqui watershed during construction activities. The ADEQ has requested that preventative and mitigative measures be taken to minimize these potential impacts. The measures are detailed in the ADEQ's letter (Exhibit E), and are derived from applicable state rules as contained in A.A.C. R18-11-101 through R18-11-123.

ADEQ has also advised a Clean Water Act, Section 404 Permit will be required if construction activities involve channelization or earthmoving within a "water of the United States". This permit will need to be obtained from the U.S. Army Corps of Engineers prior to commencement of construction.

A federal Clean Water Act, Section 402 NPDES storm water permit must be applied for prior to commencement of construction activities if clearing, grubbing and excavation activities disturb more than five acres of land. Grading of less than five acres will also be required to be permitted if it is part of a larger development plan.

Aircraft Noise

A noise analysis is not required by the Federal Aviation Administration for airport proposals which involve utility or transport airports whose forecast annual operations within the period covered by an Environmental Assessment do not exceed 90,000 annual propeller operations or 700 jet operations.

According to the forecasts developed for the Tombstone Municipal Airport, activity will remain well below this threshold level during the period under study, and no significant future noise impacts are foreseen.

No agency comments were received regarding this issue.

Compatible
Land Use

Land-use compatibility conflicts are a common problem around many airports and smaller General Aviation facilities. In urban areas, as well as some rural settings, airport owners find that essential expansion to meet the demands of airport traffic is difficult to achieve due to the nearby development of incompatible land uses.

The issue of aircraft noise is generally the most apparent perceived environmental impact upon the surrounding community. As was mentioned above, there are no apparent significant noise exposure levels associated with the planned development. However, conflicts may also exist in the protection of runway approach and transition zones to assure the safety of both the flying public and the adjacent property owners. Adequate land for this use should be either owned in fee or controlled in easements.

Within this Master Plan, fee acquisition is recommended for the existing and ultimate Runway 6-24 and Runway 2-20 Runway Protection Zones (RPZ's) in order to control this space for airport use.

A review of the area adjacent to the airport indicates that there are presently no existing, adjacent incompatible land uses affecting the airport. To maintain this condition, the City of Tombstone and/or Cochise County should enact airport-related local ordinances. The Arizona Airports Land Use Compatibility Study, Volume V of the Arizona Aviation System Plan (December 1992), prepared by the Arizona Department of Transportation, Aeronautics Division, is a source document for potential local ordinances. Among the airport-related ordinances that the County should consider are:

- Height hazard ordinances
- Noise ordinances
- Land use ordinances

No specific agency comments were received regarding this issue.

Environmental
Justice in
Minority and
Low-Income
Populations

The FAA has established procedures for the Department of Transportation and recipients of DOT funds to use in complying with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. The objective of this DOT Order is to set forth a process by which DOT will integrate the goals of the existing requirements of the Civil Rights Act of 1964 (Title VI), the National Environmental Policy Act (NEPA), the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and other applicable policies.

As a part of the EA process, it will be necessary to determine if there will be a disproportionately high and adverse human health or environmental effect upon minority and/or low-income populations.

No specific agency comments were received regarding this issue.

SUMMARY OF
FINDINGS

There are two proposed projects that will require preparation of an Environmental Assessment and issuance of a FONSI. These are the extension of Runway 6-24 and the construction of a new crosswind Runway 2-20 in the Ultimate Term. The Environmental Assessment for these projects should address all applicable items listed in FAA Order 5050.4. Based on this environmental overview, the potentially critical issues appear to be:

- Cultural and Historic Resources
- Air Quality
- Water Quality
- Endangered and Threatened Species
- Construction Impacts

For those airport projects that are "Categorically Excluded", environmental planning must still be considered. Plans and specifications should address Cultural and Historic Resources, Air Quality, Water Quality, and Construction Impacts.

Other proposed projects which may involve the use of federal or state funds, other than FAA or ADOT-Aeronautics funds, may be subject to other permitting requirements.

The City of Tombstone, and/or Cochise County (as is appropriate) should enact airport-related ordinances to control the use of land surrounding the airport.

SHELDON R. JONES
Director



G. JOHN CARAVETTA
Associate Director

Arizona Department of Agriculture

1688 West Adams, Phoenix, Arizona 85007
(602) 542-4373 FAX (602) 542-0999

PLANT SERVICES DIVISION

September 3, 1998

Exhibit A

Nicholas J. Pela & Associates
Eight Airport Avenue
Cumberland, WI 54829-1057

RE: Tombstone Municipal Airport - Tombstone, AZ
Airport Master Plan
Figure 4A Development Alternate 1
Figure 4B Development Alternate 2

The Arizona Department of Agriculture has reviewed the referenced project information package dated August 25, 1998.

Based on the information provided, the projects are not expected to have any significant adverse impact to protected plant species. The Department recommends that if any protected plants exist on site, they be avoided or transplanted, preferably on site.

RE: Tombstone Municipal Airport - Tombstone, AZ
Airport Master Plan
Figure 4C Development Alternate 3
Figure 4D Development Alternate 4
Figure 4E Development Alternate 5

The Department recommends that, if any protected native plants exist on site, they be avoided or transplanted preferably on site.

If it is not known if protected plants occur on the proposed project site, the Department, upon request, will conduct a survey of the site to determine the type and number of protected plants present. The applicant, however, will be billed for the survey. The Department will also accept survey counts from other competent sources.

We appreciate the opportunity to review the proposed actions. If you need additional information, please contact me at 602/542-3292.

Sincerely,

A handwritten signature in cursive script that reads "James McGinnis".

James McGinnis
Chief Enforcement Officer
Resource Protection

JM:clw



JANE DEE HULL
GOVERNOR

Arizona
State Land Department

1616 WEST ADAMS
PHOENIX, ARIZONA 85007



J. DENNIS WELLS
STATE LAND COMMISSIONER

August 31, 1998

Exhibit B

Nicholas J. Pela
8 Airport Avenue
Cumberland Municipal Airport
Cumberland, WI 54829-1057

RE: Tombstone Municipal Airport - Tombstone, Arizona
Airport Master Plan
NJP #P29.0001

Dear Mr. Pela:

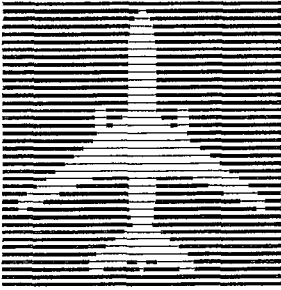
All of the land surrounding the Tombstone Municipal airport is State Trust land. On the alternative maps, you have correctly indicated that additional land will have to be acquired, although you have indicated this would be done in two ways: fee acquisition and easement. It is unclear why all of the State Trust land that might be needed would not be acquired through purchase (fee acquisition). If there is some specific reason why you would need to acquire some State land through a Right-of-way (easement), please let me know. Otherwise, the preferred method of acquisition, from the State Land Department's perspective, would be to purchase all of the land.

If you have questions or comments, please contact me at 602-542-2657.

Sincerely,

William Dowdle, Manager
Environmental Resources & Trespass

WD/dj



Eight Airport Avenue
Cumberland Municipal Airport
Cumberland, Wisconsin 54829-1057

Telephone (715) 822-5695
FAX (715) 822-5697

e-mail NJPela@aol.com

NICHOLAS J. PELA & ASSOCIATES

Exhibit C

September 8, 1998

William Dowdle, Manager
Arizona State Land Department
Environmental Resources & Trespass Division
1616 West Adams
Phoenix, AZ 85007

RE: Tombstone Municipal Airport
Airport Master Plan

Dear Mr. Dowdle:

Thank you for your timely review of the information package for the referenced project, and for your concise response regarding your department's requirements.

You informed us that the preferred method of acquisition of the State trust lands surrounding the Tombstone Municipal Airport would be to purchase all required land in fee, rather than easements (rights-of-way). The alternative layouts that you reviewed indicate our interpretation of the minimum requirements of the Federal Aviation Administration (FAA) for providing protection of the runway approaches. Some of the land in the approach zones could be protected by easements according to the FAA's requirements.

We will include your correspondence in our report and make revisions to reflect your requirements, and consider that all future acquisitions of State trust land would be purchased in fee.

Sincerely,

Nicholas J. Pela
Principal Planner



United States Department of the Interior
Fish and Wildlife Service

Arizona Ecological Services Field Office
2321 W. Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
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In Reply Refer To:

AESO/SE
2-21-98-I-386
CCN 981055

August 31, 1998

Exhibit D

(2 pages + attachment)

Mr. Nicholas J. Pela, Principal
Nicholas J. Pela & Associates
2930 East Northern Avenue, Building A
Phoenix, Arizona 85028

RE: Tombstone Municipal Airport Master Plan

Dear Mr. Pela:

This letter responds to your August 25, 1998, request for an inventory of threatened or endangered species, or those that are proposed to be listed as such under the Endangered Species Act of 1973, as amended (Act), which may potentially occur in your project area (Cochise County). The enclosed list may include candidate species as well. We hope the enclosed county list of species will be helpful. In future communications regarding this project, please refer to consultation number 2-21-98-I-386.

The enclosed list of the endangered, threatened, proposed, and candidate species includes all those potentially occurring anywhere in the county, or counties, where your project occurs. Please note that your project area may not necessarily include all or any of these species. The information provided includes general descriptions, habitat requirements, and other information for each species on the list. Also on the enclosed list is the Code of Federal Regulations (CFR) citation for each listed or proposed species. Additional information can be found in the CFR and is available at most public libraries. This information should assist you in determining which species may or may not occur within your project area. Site-specific surveys could also be helpful and may be needed to verify the presence or absence of a species or its habitat as required for the evaluation of proposed project-related impacts.

Endangered and threatened species are protected by Federal law and must be considered prior to project development. If the action agency determines that listed species or critical habitat may be adversely affected by a federally funded, permitted, or authorized activity, the action agency must request formal consultation with the Service. If the action agency determines that the planned action may jeopardize a proposed species or destroy or adversely modify proposed critical habitat, the action agency must enter into a section 7 conference with the Service. Candidate species are those which are being considered for addition to the list of threatened or endangered species. Candidate species are those for which there is sufficient information to support a proposal for listing. Although candidate species have no legal protection under the

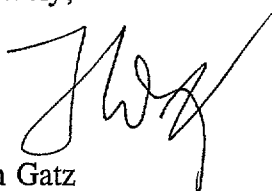
Act, we recommend that they be considered in the planning process in the event that they become listed or proposed for listing prior to project completion.

If any proposed action occurs in or near areas with trees and shrubs growing along watercourses, known as riparian habitat, the Service recommends the protection of these areas. Riparian areas are critical to biological community diversity and provide linear corridors important to migratory species. In addition, if the project will result in the deposition of dredged or fill materials into waterways or excavation in waterways, we recommend you contact the Army Corps of Engineers which regulates these activities under Section 404 of the Clean Water Act.

The State of Arizona protects some plant and animal species not protected by Federal law. We recommend you contact the Arizona Game and Fish Department and the Arizona Department of Agriculture for State-listed or sensitive species in your project area.

The Service appreciates your efforts to identify and avoid impacts to listed and sensitive species in your project area. If we may be of further assistance, please contact Tom Gatz.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Gatz', with a long horizontal stroke extending to the right.

Tom Gatz
Acting Field Supervisor

Enclosure

cc: Director, Arizona Game and Fish Department, Phoenix, AZ

4/9/98

LISTED TOTAL= 19

NAME: CANELO HILLS LADIES' TRESSES

SPIRANTHES DELITESCENS

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: SLENDER ERECT MEMBER OF THE ORCHID FAMILY (ORCHIDACEAE).

FLOWER: STALK 50 CM TALL, MAY CONTAIN 40 WHITE FLOWERS

SPIRALLY ARRANGED ON THE FLOWERING STALK.

ELEVATION

RANGE: about 5000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: FINELY GRAINED, HIGHLY ORGANIC, SATURATED SOILS OF CIENEGAS

POTENTIAL HABITAT OCCURS IN SONORA, MEXICO, BUT NO POPULATIONS HAVE BEEN FOUND.

NAME: COCHISE PINCUSHION CACTUS

CORYPHANTHA ROBBINSORUM

STATUS: THREATENED

CRITICAL HAB No RECOVERY PLAN: Yes CFR: 51 FR 952, 1-9-1986

DESCRIPTION: A SMALL UNBRANCHED CACTUS WITH NO CENTRAL SPINES AND 11-17

WHITE RADIAL SPINES. THE BELL-SHAPED FLOWERS ARE BORNE ON

THE ENDS OF TUBERCLES (Protrusions). FLOWERS: BELL SHAPED,

PALE YELLOW-GREEN. FRUITS: ORANGE-RED TO RED

ELEVATION

RANGE: >4200 FT.

COUNTIES: COCHISE AND SONORA, MEXICO

HABITAT: SEMIDESERT GRASSLAND WITH SMALL SHRUBS, AGAVE, OTHER CACTI, AND GRAMA GRASS.

GROWS ON GRAY LIMESTONE HILLS.

NAME: HUACHUCA WATER UMBEL

LILAEOPSIS SCHAFFNERIANA ssp RECURVA

STATUS: ENDANGERED

CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: HERBACEOUS, SEMI-AQUATIC PERENNIAL IN THE PARSLEY FAMILY

(UMBELLIFERAE) WITH SLENDER ERECT, HOLLOW, LEAVES THAT GROW

FROM THE NODES OF CREEPING RHIZOMES. FLOWER: 3 TO 10

FLOWERED UMBELS ARISE FROM ROOT NODES.

ELEVATION

RANGE: 3500-6500 FT.

COUNTIES: PIMA, SANTA CRUZ, COCHISE

HABITAT: CIENEGAS, PERENNIAL LOW GRADIENT STREAMS, WETLANDS

AND IN ADJACENT SONORA, MEXICO, WEST OF THE CONTINENTAL DIVIDE. POPULATIONS ALSO ON FORT HUACHUCA MILITARY RESERVATION.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

4/9/98

NAME: NEW MEXICAN RIDGE-NOSED RATTLESNAKE *CROTALUS WILLARDI OBSCURUS*

STATUS: THREATENED CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 43 FR 34479, 04-04-1978

DESCRIPTION: SMALL 12-24 INCHES, SECRETIVE GRAYISH-BROWN WITH DISTINCT RIDGE ON THE END OF THE SNOUT. THE DORSAL SURFACE HAS OBSCURE, IRREGULARLY SPACED WHITE CROSSBARS EDGED WITH BROWN (NOT A BOLD PATTERN). ELEVATION RANGE: 5600-9000 FT.

COUNTIES: COCHISE

HABITAT: PRESUMABLY CANYON BOTTOMS IN PINE-OAK & PINE-FIR COMMUNITIES WITH ALDER, MAPLE, OAK, & BOX ELDER

THE SUBSPECIES HAS NOT BEEN DOCUMENTED IN ARIZONA. HOWEVER, IT HAS BEEN OBSERVED NEAR THE ARIZONA BORDER IN THE PELONCILLO MOUNTAINS AND LIKELY OCCURS IN THE ARIZONA PORTION OF THAT RANGE AS WELL. ANOTHER SUBSPECIES, (*CROTALUS WILLARDI WILLARDI*), IS AN ARIZONA STATE CANDIDATE.

NAME: JAGUAR, UNITED STATES POPULATION *PANTHERA ONCA*

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 39147, 7-22-97

DESCRIPTION: MUSCULAR CAT WITH RELATIVELY SHORT, MASSIVE LIMBS AND A DEEP-CHESTED BODY. CINNAMON-BUFF IN COLOR WITH BLACK SPOTS.

ELEVATION
RANGE: <8000 FT.

COUNTIES: COCHISE, PIMA, SANTA CRUZ

HABITAT: IN ARIZONA, RANGED WIDELY THROUGHOUT A VARIETY OF HABITATS FROM SONORAN DESERT TO CONIFER FORESTS

MOST RECORDS ARE FROM THE MADREAN EVERGREEN-WOODLAND, SHRUB-INVADDED SEMI-DESERT GRASSLAND, AND ALONG RIVERS. HISTORIC RANGE IS CONSIDERED TO HAVE EXTENDED BEYOND THE COUNTIES LISTED ABOVE. REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED. THE MOST RECENT RECORDS OF A JAGUAR IN THE U.S. ARE FROM THE NEW MEXICO/ARIZONA BORDER AREA AND IN SOUTHCENTRAL ARIZONA, BOTH IN 1996, AND CONFIRMED THROUGH PHOTOGRAPHS. UNCONFIRMED SIGHTINGS AND TRACKS CONTINUE TO BE REPORTED.

NAME: JAGUARUNDI *FELIS YAGOUAROUNDI TOLTECA*

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: No CFR: 41 FR 24064; 06-14-76

DESCRIPTION: SMALL CAT WITH SHORT LEGS; SLENDER, ELONGATE BODY; AND LONG TAIL. HEAD SMALL & FLATTENED WITH SHORT ROUNDED EARS. REDDISH-YELLOW OR BLACKISH TO BROWN-GRAY IN COLOR AND WITHOUT SPOTS.

ELEVATION
RANGE: 3500-6000 FT.

COUNTIES: SANTA CRUZ, PIMA, COCHISE

HABITAT: CAN BE FOUND IN A VARIETY OF HABITATS (SEE BELOW)

SEMI-ARID THORNY FORESTS, DECIDUOUS FORESTS, HUMID PRE-MONTANE FORESTS, UPLAND DRY SAVANNAHS, SWAMPY GRASSLANDS, RIPARIAN AREAS, AND DENSE BRUSH. UNCONFIRMED REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED. NO SPECIMENS HAVE BEEN COLLECTED IN ARIZONA.

4/9/98

NAME: LESSER LONG-NOSED BAT

LEPTONYCTERIS CURASOAE YERBABUENAE

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 53 FR 38456, 09-30-88

DESCRIPTION: ELONGATED MUZZLE, SMALL LEAF NOSE, AND LONG TONGUE.
YELLOWISH BROWN OR GRAY ABOVE AND CINNAMON BROWN BELOW.
TAIL MINUTE AND APPEARS TO BE LACKING. EASILY DISTURBED. ELEVATION
RANGE: <6000 FT.

COUNTIES: COCHISE, PIMA, SANTA CRUZ, GRAHAM, PINAL, MARICOPA

HABITAT: DESERT SCRUB HABITAT WITH AGAVE AND COLUMNAR CACTI PRESENT AS FOOD PLANTS

DAY ROOSTS IN CAVES AND ABANDONED TUNNELS. FORAGES AT NIGHT ON NECTAR, POLLEN, AND FRUIT OF PANICULATE AGAVES AND COLUMNAR CACTI. THIS SPECIES IS MIGRATORY AND IS PRESENT IN ARIZONA, USUALLY FROM APRIL TO SEPTEMBER AND SOUTH OF THE BORDER THE REMAINDER OF THE YEAR.

NAME: MEXICAN GRAY WOLF

*CANIS LUPUS BAILEYI*STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67; 43
FR 1912, 03-09-78DESCRIPTION: LARGE DOG-LIKE CARNIVORE WITH VARYING COLOR, BUT USUALLY A
SHADE OF GRAY. DISTINCT WHITE LIP LINE AROUND MOUTH. WEIGH 60-
90 POUNDS. ELEVATION
RANGE: 4,000-12,000 FT.

COUNTIES: APACHE, COCHISE, GREENLEE, PIMA, SANTA CRUZ

HABITAT: CHAPPARAL, WOODLAND, AND FORESTED AREAS. MAY CROSS DESERT AREAS.

HISTORIC RANGE IS CONSIDERED TO BE LARGER THAN THE COUNTIES LISTED ABOVE. UNCONFIRMED REPORTS
OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE (COCHISE, PIMA, SANTA CRUZ) CONTINUE TO BE
RECEIVED. INDIVIDUALS MAY STILL PERSIST IN MEXICO. EXPERIMENTAL NONESSENTIAL POPULATION
INTRODUCED IN THE BLUE PRIMITIVE AREA OF GREENLEE AND APACHE COUNTIES.

NAME: OCELOT

FELIS PARDALIS

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 47 FR 31670; 07-21-82

DESCRIPTION: MEDIUM-SIZED SPOTTED CAT WHOSE TAIL IS ABOUT 1/2 THE LENGTH
OF HEAD AND BODY. YELLOWISH WITH BLACK STREAKS AND STRIPES
RUNNING FROM FRONT TO BACK. TAIL IS SPOTTED AND FACE IS LESS
HEAVILY STREAKED THAN THE BACK AND SIDES. ELEVATION
RANGE: <8000 FT.

COUNTIES: SANTA CRUZ, PIMA, COCHISE

HABITAT: HUMID TROPICAL & SUB-TROPICAL FORESTS, SAVANNAHS, AND SEMI-ARID THORNSCRUB.

MAY PERSIST IN PARTLY-CLEARED FORESTS, SECOND-GROWTH WOODLAND, AND ABANDONED CULTIVATION
REVERTED TO BRUSH. UNIVERSAL COMPONENT IS PRESENCE OF DENSE COVER. UNCONFIRMED REPORTS OF
INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

4/9/98

NAME: BEAUTIFUL SHINER

CYPRINELLA FORMOSA

STATUS: THREATENED CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 8-31-1984

DESCRIPTION: SMALL (2.5 INCHES) SHINY MINNOW AND VERY SIMILAR TO RED SHINER.
MALES COLORFUL DURING BREEDING (YELLOW-ORANGE OR ORANGE
ON CAUDAL AND LOWER FINS AND BLUISH BODY.

ELEVATION

RANGE: <4500 FT.

COUNTIES: COCHISE

HABITAT: SMALL TO MEDIUM SIZED STREAMS AND PONDS WITH SAND, GRAVEL, AND ROCK BOTTOMS.

VIRTUALLY EXTIRPATED IN THE UNITED STATES, WITH THE EXCEPTION OF A FEW ISOLATED POPULATIONS ON NATIONAL WILDLIFE REFUGES AND IN MEXICO. SAME CRITICAL HABITAT AS YAQUI CHUB AND CATFISH (SEE 49 FR 34490, 08-31-1984).

NAME: YAQUI CATFISH

ICTALURUS PRICEI

STATUS: THREATENED CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 08-31-1984

DESCRIPTION: SIMILAR TO CHANNEL CATFISH (*Ictalurus punctatus*) EXCEPT ANAL FIN
BASE IS SHORTER AND THE DISTAL MARGIN OF THE ANAL FIN IS
BROADLY ROUNDED WITH 23-25 SOFT RAYS. BODY USUALLY
PROFUSELY SPECKLED.

ELEVATION

RANGE: 4000-5000 FT.

COUNTIES: COCHISE

HABITAT: MODERATE TO LARGE STREAMS WITH SLOW CURRENT OVER SAND AND ROCK BOTTOMS

CRITICAL HABITAT ALL AQUATIC HABITATS IN THE MAIN PORTION OF SAN BERNADINO NATIONAL WILDLIFE
REFUGE

NAME: YAQUI CHUB

GILA PURPUREA

STATUS: ENDANGERED CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 08-31-1984

DESCRIPTION: MEDIUM SIZED MINNOW (<6 INCHES) DARK COLORED, LIGHTER BELOW.
DARK TRIANGULAR CAUDAL SPOT

ELEVATION

RANGE: 4000-6000 FT.

COUNTIES: COCHISE (AZ), MEXICO

HABITAT: DEEP POOLS OF SMALL STREAMS, POOLS, OR PONDS NEAR UNDERCUT BANKS.

CRITICAL HABITAT INCLUDES ALL AQUATIC HABITATS OF THE MAIN PORTION SAN BERNADINO NATIONAL WILDLIFE
REFUGE.

4/9/98

NAME: YAQUI TOPMINNOW

POECILIOPSIS OCCIDENTALIS SONORIENSIS

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967

DESCRIPTION: SMALL (2 INCHES) TOPMINNOW-GUPPY-LIKE, LIVE BEARING, LACKING DARK SPOTS. BREEDING MALES JET-BLACK WITH YELLOW FINS.

ELEVATION
RANGE: <4500 FT.

COUNTIES: COCHISE

HABITAT: SMALL TO MODERATE SIZED STREAMS, SPRINGS, & CIENEGAS GENERALLY IN SHALLOWS

NAME: AMERICAN PEREGRINE FALCON

FALCO PEREGRINUS ANATUM

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 35 FR 16047, 10-13-70; 35

DESCRIPTION: A RECLUSIVE, CROW-SIZED FALCON SLATY BLUE ABOVE WHITISH FR 8495, 06-02-70

BELOW WITH FINE DARK BARRING. THE HEAD IS BLACK AND APPEARS

TO BE MASKED OR HELMETED. WINGS LONG AND POINTED. LOUD

WAILING CALLS ARE GIVEN DURING BREEDING PERIOD.

ELEVATION
RANGE: 3500-9000 FT.

COUNTIES: MOHAVE COCONINO NAVAJO APACHE SANTA CRUZ MARICOPA COCHISE YAVAPAI GILA PINAL PIMA GREENLEE GRAHAM

HABITAT: CLIFFS AND STEEP TERRAIN USUALLY NEAR WATER OR WOODLANDS WITH ABUNDANT PREY

THIS IS A WIDE-RANGING MIGRATORY BIRD THAT USES A VARIETY OF HABITATS. BREEDING BIRDS ARE YEAR-ROUND RESIDENTS. OTHER BIRDS WINTER AND MIGRATE THROUGH ARIZONA. SPECIES IS ENDANGERED FROM REPRODUCTIVE FAILURE FROM PESTICIDES.

NAME: MEXICAN SPOTTED OWL

STRIX OCCIDENTALIS LUCIDA

STATUS: THREATENED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 56 FR 14678, 04-11-91

DESCRIPTION: MEDIUM SIZED WITH DARK EYES AND NO EAR TUFTS. BROWNISH AND HEAVILY SPOTTED WITH WHITE OR BEIGE.

ELEVATION
RANGE: 4100-9000 FT.

COUNTIES: MOHAVE, COCONINO, NAVAJO, APACHE, YAVAPAI, GRAHAM, GREENLEE, COCHISE, SANTA CRUZ, PIMA, PINAL, GILA, MARICOPA

HABITAT: NESTS IN CANYONS AND DENSE FORESTS WITH MULTI-LAYERED FOLIAGE STRUCTURE

GENERALLY NESTS IN OLDER FORESTS OF MIXED CONIFER OR PONDEROSA PINE/GAMBEL OAK TYPE, IN CANYONS, AND USE VARIETY OF HABITATS FOR FORAGING. SITES WITH COOL MICROCLIMATES APPEAR TO BE OF IMPORTANCE OR ARE PREFERRED.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

4/9/98

NAME: NORTHERN APLOMADO FALCON

FALCO FEMORALIS SEPTENTRIONALIS

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: Yes CFR: 51 FR 6686, 01-25-86

DESCRIPTION: RUFOUS UNDERPARTS, GRAY BACK, LONG BANDED TAIL, AND A DISTINCT BLACK AND WHITE FACIAL PATTERN. SMALLER THAN PEREGRINE LARGER THAN KESTREL. BREEDS BETWEEN MARCH-JUNE

ELEVATION
RANGE: 3500-9000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: GRASSLAND AND SAVANNAH

SPECIES FORMERLY NESTED IN SOUTHWESTERN US. NOW OCCURS AS AN ACCIDENTAL. GOOD HABITAT HAS LOW GROUND COVER AND MESQUITE OR YUCCA FOR NESTING PLATFORMS. CONTINUED USE OF PESTICIDES IN MEXICO ENDANGERS THIS SPECIES. NO RECENT CONFIRMED REPORTS FOR ARIZONA.

NAME: SOUTHWESTERN WILLOW FLYCATCHER

EMPIDONAX TRAILLII EXTIMUS

STATUS: ENDANGERED CRITICAL HAB Yes RECOVERY PLAN: No CFR: 60 FR 10694, 02-27-95

DESCRIPTION: SMALL PASSERINE (ABOUT 6") GRAYISH-GREEN BACK AND WINGS, WHITISH THROAT, LIGHT OLIVE-GRAY BREAST AND PALE YELLOWISH BELLY. TWO WINGBARS VISIBLE. EYE-RING FAINT OR ABSENT.

ELEVATION
RANGE: <8500 FT.

COUNTIES: YAVAPAI, GILA, MARICOPA, MOHAVE, COCONINO, NAVAJO, APACHE, PINAL, LA PAZ, GREENLEE, GRAHAM, YUMA, PIMA, COCHISE, SANTA CRUZ

HABITAT: COTTONWOOD/WILLOW & TAMARISK VEGETATION COMMUNITIES ALONG RIVERS & STREAMS

MIGRATORY RIPARIAN OBLIGATE SPECIES THAT OCCUPIES BREEDING HABITAT FROM LATE APRIL TO SEPTEMBER. DISTRIBUTION WITHIN ITS RANGE IS RESTRICTED TO RIPARIAN CORRIDORS. DIFFICULT TO DISTINGUISH FROM OTHER MEMBERS OF THE EMPIDONAX COMPLEX BY SIGHT ALONE. TRAINING SEMINAR REQUIRED FOR THOSE CONDUCTING FLYCATCHER SURVEYS. CRITICAL HABITAT ON PORTIONS OF THE 100-YEAR FLOODPLAIN ON SAN PEDRO AND VERDE RIVERS; WET BEAVER AND WEST CLEAR CREEKS, INCLUDING TAVASCI MARSH AND ISTER FLAT; THE COLORADO RIVER, THE LITTLE COLORADO RIVER, AND THE WEST, EAST, AND SOUTH FORKS OF THE LITTLE COLORADO RIVER, REFERENCE 60 CFR:62 FR 39129, 7/22/97.

NAME: WHOOPING CRANE

GRUS AMERICANA

STATUS: ENDANGERED CRITICAL HAB Yes RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967; 43

DESCRIPTION: TALLEST AMERICAN BIRD (UP TO 5 FEET) SNOWY WHITE, LONG NECK AND LEGS, BLACK WING TIPS, RED CROWN, AND BLACK WEDGE SHAPED PATCH OF FETHERS BEHIND ITS EYE.

ELEVATION
RANGE: 4500 FT.

COUNTIES: COCHISE

HABITAT: MARSHES, PRAIRIES, RIVER BOTTOMS

BIRDS IN THE ROCKY MOUNTAIN POPULATION ARE OCCASIONAL VISITORS IN ARIZONA DURING MIGRATION. USUALLY NEAR WILCOX PLAYA.

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY:

COCHISE

4/9/98

NAME: SONORA TIGER SALAMANDER

AMBYSTOMA TIGRINUM STEBBINSI

STATUS: ENDANGERED CRITICAL HAB No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: 2.6 TO 4.9" SNOUT-VENT LENGTH WITH LIGHT-COLORED BANDS ON A DARK BACKGROUND. AQUATIC LARVAE ARE UNIFORM DARK COLOR WITH PLUME-LIKE GILLS AND TAIL FINS.

ELEVATION RANGE: 4000-6300 FT.

COUNTIES: SANTA CRUZ, COCHISE

HABITAT: STOCK TANKS AND IMPOUNDED CIENEGAS IN SAN RAFAEL VALLEY, HUACHUCA MOUNTAINS

ALSO OCCURS IN THE FOOTHILLS OF THE EAST SLOPE OF THE PATAGONIA AND HUACHUCA MOUNTAINS.
POPULATIONS ALSO ON FORT HUACHUCA.

4/9/98

PROPOSED TOTAL= 1

NAME: BLUMER'S DOCK (CHIRICAHUA) *RUMEX ORTHONEURUS*

STATUS: PROPOSED

CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: LARGE LONG-LIVED PERENNIAL PLANT IN THE BUCKWHEAT FAMILY
THAT CAN REACH 1.2-2.0 METERS. LARGE BROAD, OVAL SEMI-
SUCCULENT LEAVES ARE BRIGHT GREEN. CONSPICUOUS SECONDARY
VEINS AT RIGHT ANGLES TO THE MIDVEIN

ELEVATION
RANGE: 6500-9000 FT.

COUNTIES: APACHE, COCHISE, GILA, GRAHAM, NAVAJO

HABITAT: MID TO HIGH ELEVATION SPRINGS, STREAMS, & WETLANDS WITH MOIST ORGANIC SOILS OR SHADED
CANYONS

SPECIES FOUND IN CHIRICAHUA, PINALENO, HUACHUCA, SIERRA ANCHA, AND WHITE MOUNTAINS. SPECIES ALSO
FOUND IN WESTERN AND NORTHERN NEW MEXICO.

4/9/98

CANDIDATE TOTAL= 5

NAME: LEMMON FLEABANE *ERIGERON LEMMONII*

STATUS: CANDIDATE CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: A PROSTRATE PERENNIAL IN THE SUNFLOWER FAMILY. STEMS AND LEAVES ARE DENSELY HAIRY. FLOWERS LOOK LIKE SMALL DELICATE DAISIES, WITH WHITE TO LIGHT PURPLE OUTER PETALS AND YELLOW INNER PETALS. ELEVATION RANGE: 1500-6000 FT.

COUNTIES: COCHISE

HABITAT: GROWS IN DENSE CLUMPS IN CREVICES, LEDGES, AND BOULDERS IN CANYON BOTTOMS IN PINE-OAK WOODLAND

NAME: GILA CHUB *GILA INTERMEDIA*

STATUS: CANDIDATE CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: DEEP COMPRESSED BODY, FLAT HEAD. DARK OLIVE-GRAY COLOR ABOVE, SILVER SIDES. ENDEMIC TO GILA RIVER BASIN.

ELEVATION RANGE: 2000 - 3500 FT.

COUNTIES: SANTA CRUZ, GILA, GREENLEE, PIMA, COCHISE, GRAHAM, YAVAPAI

HABITAT: POOLS, SPRINGS, CIENEGAS, AND STREAMS

MULTIPLE PRIVATE LANDOWNERS, INCLUDING THE NATURE CONSERVANCY, THE AUDUBON SOCIETY, AND OTHERS. ALSO FT. HUACHUCA. SPECIES ALSO FOUND IN SONORA, MEXICO.

NAME: HUACHUCA SPRINGSNAIL *PYRGULOPSIS THOMPSONI*

STATUS: CANDIDATE CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: VERY SMALL (1.7-3.2mm) CONICAL SHELL. IDENTIFICATION MUST BE VERIFIED BY CHARACTERISTICS OF REPRODUCTIVE ORGANS.

ELEVATION RANGE: 4500-6000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: AQUATIC AREAS, SMALL SPRINGS WITH VEGETATION SLOW TO MODERATE FLOW.

INDIVIDUALS FOUND ON FIRM SUBSTANCES (ROOTS, WOOD, AND ROCKS)

4/9/98

NAME: MOUNTAIN PLOVER

CHARADRIUS MONTANUS

STATUS: CANDIDATE CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: WADING BIRD; COMPACTLY BUILT; IN BREEDING SEASON WITH WHITE
FOREHEAD AND LINE OVER THE EYE; CONTRASTING WITH DARK
CROWN; NONDESCRIPT IN WINTER. VOICE IS LOW, VARIABLE WHISTLE. ELEVATION
RANGE: 0 FT.

COUNTIES: YUMA, SANTA CRUZ, PIMA, COCHISE

HABITAT: OPEN ARID PLAINS, SHORT-GRASS PRAIRIES, AND SCATTERED CACTUS.

NAME: CHIRICAHUA LEOPARD FROG

RANA CHIRICAHUENSIS

STATUS: CANDIDATE CRITICAL HAB No RECOVERY PLAN: No CFR:

DESCRIPTION: CREAM COLORED TUBERCULES (spots) ON A DARK BACKGROUND ON
THE REAR OF THE THIGH, DORSOLATERAL FOLDS THAT ARE
INTERRUPTED AND DEFLECTED MEDIALY, AND A CALL GIVEN OUT OF
WATER DISTINGUISH THIS SPOTTED FROG FROM OTHER LEOPRD ELEVATION
RANGE: 3000-8300 FT.

COUNTIES: SANTA CRUZ, APACHE, GILA, PIMA, COCHISE, GREENLEE, GRAHAM, YAVAPAI, COCONINO, NAVAJO

HABITAT: STREAMS, RIVERS, BACKWATERS, PONDS, AND STOCK TANKS THAT ARE FREE FROM INTRODUCED FISH
AND BULLFROGS

REQUIRE PERMANENT OR NEARLY PERMANENT WATER SOURCES. POPULATIONS NORTH OF THE GILA RIVER ARE
THOUGHT TO BE CLOSELY-RELATED, BUT DISTINCT, UNDESCRIBED SPECIES.



Exhibit E

(4 pages)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Governor Jane Dee Hull

Russell F. Rhoades, Director

Planning Section, 2nd Floor
1-800-234-5677 (Arizona Only)
FAX (602) 207-4634
(602) 207-4630

September 10, 1998

Nicholas J. Pela, Principal
Nicholas J. Pela and Associates
Eight Airport Avenue
Cumberland Municipal Airport
Cumberland, Wisconsin 54829-1057

via telefax: (715) 822-5697

Re: Tombstone Municipal Airport, Tombstone, Arizona

Dear Mr. Pela:

The Arizona Department of Environmental Quality, Division of Water Quality appreciates the opportunity to comment on the Tombstone Municipal Airport Master Plan. Data for this site as reported in the Surface Water Assessment Reports are as follows:

The Tombstone Municipal Airport site is within the San Pedro/ Willcox Playa/ Rio Yaqui watershed. The nearest waterbody is a tributary to Government Draw. Also nearby (within T20S, R23E) are tributaries to Babocomari River. The nearest waterbody known to be non-supportive of designated uses is the San Pedro River between Babocomari and the Dragoon Wash, which is stressed by fecal coliform and turbidity. This may indicate that other waters in area, including those near the airport site, could be impacted by activities which increase turbidity and/or fecal coliform.

Since any of the proposed alternatives may contribute to increases in particulate matter in the atmosphere and sediment in watercourses, we would request that steps be taken to minimize the amount of particulate matter (dust) and sediment generated and transported off construction sites by wind or water, as well as tracking of dirt off the construction site by machinery and trucks.

We recommend that the following preventive and mitigative measures be taken to minimize the possible particulate and sediment pollution problem:

I. Site Preparation

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- A. Minimize land disturbance;
- B. Use watering trucks to minimize dust;
- C. Cover trucks when hauling dirt;
- D. Stabilize the surface of dirt piles if not removed immediately;
- E. Use windbreaks and drainage management practices to prevent any accidental particulate or sediment transport;
- F. Limit vehicular paths and stabilize drainage from temporary roads; and
- G. Pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site to prevent dirt from washing onto paved roadways or into surface water drainage ways.

II. Construction Phase

- A. Cover trucks when transferring materials;
- B. Use dust suppressants on traveled paths which are not paved;
- C. Minimize unnecessary vehicular and machinery activities; and
- D. Minimize dirt track-out by washing or cleaning trucks before leaving the construction site.
- E. Apply temporary drainage controls where ever construction activity might result in runoff and increased sediment transport.

III. Completion Phase

- A. Revegetate any disturbed land not used;
- B. Remove unused material;
- C. Remove dirt piles; and
- D. Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities.
- E. Reestablish all drainage ways to pre construction conditions.

Applicable state rules are contained in A.A.C. R18-11-101 through R18-11-123 (Water Quality standards for Surface Water) and A.A.C. R18-2-604, R18-2-605, R18-2-606, and R18-2-607 for Air Quality.

Actions that may be required for other activities within the jurisdiction of the Arizona Department of Environmental Quality are described below. The ADEQ Permits Handbook contains more

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information and for these programs. If you would like a copy, please contact the ADEQ at the number provided.

1. Public or semi-public water supply systems shall only be developed in compliance with Public and Semi-Public Water Supply Systems Rules. Contact **Mr. Dale Ohnmeiss at (602) 207 4648** with the Arizona Department of Environmental Quality, Program Development & Outreach Unit, regarding assistance;
2. All underground storage tanks must be registered with ADEQ. Contact **Mr. Staci Munday at (602) 207-4329** with the Arizona Department of Environmental Quality, Inspection and Compliance Unit, regarding assistance in registration;
3. All solid wastes generated by the activity shall be transported to an ADEQ approved facility. Waste stored on site for more than 90 days, or will be treated or disposed of on-site, may require facility approval. Contact **Ms. Mercedes Vidan at (602) 207-4117** with the Arizona Department of Environmental Quality, Solid Waste Plan Review Unit, regarding assistance in applying for this permit;
4. Sewage treatment facilities for human waste shall be planned and developed in such a manner to ensure protection of both surface and groundwater resources. An Aquifer Protection Permit (APP) may be required for such facilities. Contact **Mr. Charles Graf at (602) 207-4661** with the Arizona Department of Environmental Quality, Aquifer Protection Program Section, regarding assistance in applying for this permit;
5. Sanitary waste facilities provided during construction phases shall be planned and developed in such a manner to ensure protection of both surface and groundwater resources;
6. A Clean Water Act, Section 402, NPDES Permit is required for all ground disturbing activities which exceed 5 acres in impact. Contact **Mr. Robert Wilson at (602) 207-4574** with the Arizona Department of Environmental Quality regarding assistance in applying for this federal permit;
7. A Clean Water Act, Section 404 Permit may be required for the discharge of dredged or fill material into the navigable waters. Contact **Ms. Cindy Lester of the US Army Corp of Engineers at (602) 640-5385** regarding a 404 Permit application. In addition a Section 401 Certification may be required and can be obtained from ADEQ. Contact **Mr. Jayanta Das at (602) 207-4502** with the Arizona Department of Environmental Quality, Engineering Review and Permits, for assistance in obtaining certification;

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The Arizona Department of Environmental Quality would appreciate receiving information on the progress of this project. Thank you for your cooperation, should you have any questions, please contact me at (602) 207-4582.

Sincerely,

A handwritten signature in cursive script that reads "Ren Northup".

Ren Northup
Watershed Coordinator

Enclosure

cc: Jack Bale, ADEQ



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

3003 N. Central Ave.
Suite 800
Phoenix, AZ
85012-2945

September 18, 1998

Mr. Nicholas J. Pela
Principal
Nicholas J. Pela & Associates
Eight Airport Avenue
Cumberland Municipal Airport
Cumberland, Wisconsin 54829-1057

Exhibit F

Dear Mr. Pela:

This is in response to your letter dated August 25, 1998 regarding the airport master plan for the City of Tombstone, Arizona and our agency's responsibility to farmland protection.

The Natural Resources Conservation Service (NRCS) has general responsibility, nationwide, for implementing the Farmland Protection Act (FPPA) and to review projects that may affect prime farmland and/or wetlands associated with agriculture. After staff review the following is noted:

- 1- The airport master plan, if implemented as planned, is exempt from the requirements of the FPPA - as revised in 1994, that excludes land which is already in or is committed to urban development, currently used as water storage, or land that is not prime or unique farmland.
- 2- We do not see any immediate impacts that would directly affect wetland areas associated with agricultural activities.

Thank you for the opportunity to review your project and appreciate your consideration of our agency's responsibilities. Should your office need more specific on-site information technical assistance on dust, erosion, and sediment control, specific soil's and their suitability's, or stormwater management, please feel free to contact our District Conservationist, Xavier Montoya in Douglas at 520/364.2001 or Community Assistance Coordinator, Jeff Schmidt in Phoenix at 602/280.8818.

Sincerely,

MICHAEL SOMERVILLE
State Conservationist

cc:

Jim Briggs, Assistant State Conservationist, NRCS, Phoenix, Arizona
Xavier Montoya, District Conservationist, NRCS, Douglas, Arizona
Jeff Schmidt, Community Assistance Coordinator, NRCS, Phoenix, Arizona

September 25, 1998

Exhibit G

(2 pages)

Nicholas J. Pela, Principal
Nicholas J. Pela & Associates
8 Airport Avenue
Cumberland Municipal Airport
Cumberland, Wisconsin 54829-1057

RE: Tombstone; Proposed Master Plan for Tombstone Municipal Airport, NJP
#P29.0001; City of Tombstone, ADOT, and FAA

Jane Dee Hull
Governor

STATE PARKS
BOARD MEMBERS

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Executive Director

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Deputy Director

1300 West Washington
Phoenix, Arizona 85007

Tel & TTY 602-542-4174
1-800-285-3703
from (520) area code
<http://www.pr.state.az.us>

General Fax:
602-542-4180

Director's Office Fax:
602-542-4188

Dear Mr. Pela,

Thank you for consulting our office regarding the preparation of the above-referenced master plan. I have reviewed the information submitted and offer the following comments, as you requested, concerning applicable federal and state preservation statutes.

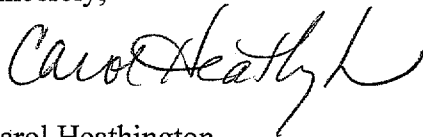
1. Your information package includes text and maps describing the existing facility and proposed development. Your airport history indicates that it was constructed in 1948 using grant funds from the Civil Aeronautics Administration. I have reviewed this project with William Collins, SHPO historian. He indicated that the development of general aviation is a topic of increasing interest to historians and that properties of this era are being considered for nomination and listing on the National Register of Historic Places.

2. Several state and federal laws concerning historic preservation may apply to the planned airport development. For example, the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA) apply if any aspect of the planning or development process involves a permit or license from a federal agency such as FAA, federal funding, or loan guarantee. Both of those laws require the agency (and thus the permit, license, or grant applicant) to consider the impact of the project on cultural resources (for example: archaeological sites, historic buildings and structures, and places of cultural significance to Native Americans). Likewise, the State Historic Preservation Act applies to lands owned or controlled by the State of Arizona, and projects funded or permitted by state agencies. These laws require the agencies involved to consult with the State Historic Preservation Office in the process of identifying cultural resources and considering project effects on those resources. State law also covers the discovery of archaeological and human remains on county and municipal lands and their subsequent treatment, and the accidental or intentional disturbance of human remains and funerary objects on private land.

Thus, an important part of the planning process should be the identification of cultural resources within the development area, including lands to be acquired or leased. That effort should include an evaluation of the existing airport, within its historic context, as a potential historic property. Your history states that repairs and runway reconstruction have taken place in the intervening years; as a result, the facility may lack sufficient historic integrity to be considered eligible for inclusion on the National Register. That too should be part of the assessment. I also recommend that any previously undeveloped land, including but not limited to new acquisitions, should be surveyed in order to locate archaeological resources that might be affected by planned improvements. I understand that it may be too early in the planning process to initiate some of these efforts; however, it is important to ensure that sufficient time and funding for these tasks is a component of the planned activities.

If you have questions after you review this information, or if you need additional information about particular aspects of the review process, please call me at (602) 542-7137; Mr. Collins may be reached at 542-7159.

Sincerely,

A handwritten signature in cursive script, appearing to read "Carol Heathington".

Carol Heathington
Compliance Specialist
State Historic Preservation Office



Exhibit H

(2 pages +
attachment)

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Governor Jane Dee Hull

Russell F. Rhoades, Director

September 29, 1998

Mr. Nicholas J. Pela, Principal
Eight Airport Avenue
Cumberland Municipal Airport
Cumberland, Wisconsin 54829-1057

SUBJECT: Comments of Arizona Department of Environmental Quality, Air Quality Division:
Tombstone Municipal Airport - Tombstone, Arizona

Dear Mr. Pela:

The purpose of this letter is to provide you with comments of the Air Quality Division of the Arizona Department of Environmental Quality for the Tombstone Municipal Airport proposals.

The proposed projects do not fall within any nonattainment area, as designated by EPA pursuant to Section 107 of the Clean Air Act. Consequently, there is neither a State Implementation Plan nor a Federal Implementation Plan requiring specific measures (strategies) with respect to the ambient air quality of the Tombstone area.

Nevertheless, the proposed project may have impacts upon ambient particulate levels. Therefore, we would request that steps are taken to minimize the amount of particulate matter (dust) generated, including incidental emissions caused by strong winds, as well as tracking dirt off the construction site by machinery and trucks. We recommend that the following preventative and mitigative measures be taken to minimize the possible particulate pollution problem:

I. Site Preparation

- A. Minimize land disturbance;
- B. Use watering trucks to minimize dust;
- C. Cover trucks when hauling dirt;
- D. Stabilize the surface of dirt piles if not removed immediately;
- E. Use windbreaks to prevent any accidental dust pollution;
- F. Limit vehicular paths and stabilize temporary roads; and
- G. Pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site to prevent dirt from washing onto paved roadways.

II. Site Construction

- A. Cover trucks when transferring materials;
- B. Use dust suppressants on traveled paths which are not paved;
- C. Minimize unnecessary vehicular and machinery activities; and
- D. Minimize dirt track-out by washing or cleaning trucks before leaving the construction site.

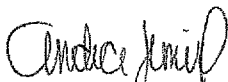
III. Site Restoration

- A. Revegetate any disturbed land not used;
- B. Remove unused material;
- C. Remove dirt piles; and
- D. Revegetate all vehicular paths created during construction to avoid future off-road vehicular activities.

Enclosed please find a copy of applicable state rules contained in A.A.C. R18-2-604, R18-2-605, R18-2-606 and R18-2-607. R18-2-604 through 606 are our rules relating to construction and earth moving activities. In addition, please be aware that portable sources of air pollution such as rock, sand, gravel, and asphalt concrete plants are required to receive permits from our agency to operate in the State.

Thank you for the opportunity to comment. Should you have any further questions, please contact me at (602) 207-4417.

Sincerely,



Andra Juniel
Planner II

Enclosure

Department of Environmental Quality - Air Pollution Control

C. The following fires are excepted from the provisions of this rule:

1. Fires used only for cooking of food or for providing warmth for human beings or for recreational purposes or the branding of animals or the use of orchard heaters for the purpose of frost protection in farming or nursery operations.
2. Any fire set or permitted by any public officer in the performance of official duty, if such fire is set or permission given for the purpose of weed abatement, the prevention of a fire hazard, or instruction in the methods of fighting fires.
3. Fires set by or permitted by the state entomologist or county agricultural agents of the county for the purpose of disease and pest prevention.
4. Fires set by or permitted by the federal government or any of its departments, agencies or agents, the state or any of its agencies, departments or political subdivisions, for the purpose of watershed rehabilitation or control through vegetative manipulation.

D. Permission for the setting of any fire given by a public officer in the performance of official duty under paragraphs (2), (3), or (4) of subsection (C), shall be given, in writing, and a copy of such written permission shall be transmitted immediately to the Director of the Department of Environmental Quality and the control officer, if any, of the county, district or region in which such fire is allowed. The setting of any such fire shall be constructed in a manner and at such time as approved by the Director, unless doing so would defeat the purpose of the exemption.

E. The following fires may be excepted from the provisions of this Section when permitted in writing by the Director of the Department of Environmental Quality or the control officer of the county, district or region in which such fire is allowed:

1. Fires set for the disposal of dangerous materials where there is no safe alternative method of disposal.
 - a. "Dangerous material" is any substance or combination of substances which is able or likely to inflict bodily harm or property loss unless neutralized, consumed or otherwise disposed of in a controlled and safe manner.
 - b. Fires set for the disposal of dangerous materials shall be permitted only when there is no safe alternative method of disposal, and when the burning of such materials does not result in the emission of hazardous or toxic substances either directly or as a product of combustion in amounts which will endanger health or safety.
2. Open outdoor fires for the disposal of ordinary household trash in an approved waste burner in nonurban areas of less than 100 well spread out dwelling units per square mile where no refuse collection and disposal service is available.
 - a. An "approved waste burner" is an incinerator constructed of fire resistant material with a cover or screen which is closed when in use having openings in the sides or top no greater than one inch in diameter.
 - b. Open burning of the following materials is forbidden: Garbage resulting from the processing, storage, service or consumption of food; asphalt shingles; tar paper; plastic and rubber products (such as waste crankcase oil, transmission oil and oil filters); transformer oils; and hazardous material containers including those

that contained inorganic pesticides, lead, cadmium, mercury, or arsenic compounds.

F. The Director of the Department of Environmental Quality or the air pollution control officer, if any, of the county, district, or region may delegate the authority for the issuance of allowable open burning permits to responsible local officers. Such permits shall contain conditions limiting the manner and the time of the setting of such fires as specified in the Arizona Guidelines for Open Burning and shall contain a provision that all burning be extinguished at the discretion of the Director or his authorized representative during periods of inadequate atmospheric smoke dispersion, periods of excessive visibility impairment which could adversely affect public safety; or periods when smoke is blown into populated areas so as to create a public nuisance.

1. Any local officer delegated the authority for issuance of open burning permits shall maintain a copy of all currently effective permits issued including a means of contacting the person authorized by the permit to set an open fire in the event that an order for extinguishing of open burning is issued.

G. Nothing in this rule is intended to permit any practice which is a violation of any statute, ordinance, rule or regulation.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Amended effective October 2, 1979 (Supp. 79-5). Correction, subsection (C) repealed effective October 2, 1979, not shown (Supp. 80-1). Former Section R9-3-602 renumbered without change as Section R18-2-602 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-602 renumbered to R18-2-802, new Section R18-2-602 renumbered from R18-2-401 effective November 15, 1993 (Supp. 93-4).

R18-2-603. Forestry Management

A. All national parks and national forests having areas which extend into more than one county of the state of Arizona, as well as all state parks and forests shall be under the jurisdiction of the Director in all matters relating to prescribed burning or slash disposal.

B. Each entity mentioned in subsection (A) shall comply with the following:

1. Each national park, state park, national forest or state forest hereinafter called forest will apply directly to the Bureau for an annual burning permit for all planned burning projects. Application will be made in the spring of the year, prior to June 1 for the ensuing fiscal year.
2. The application shall be in the form of a letter listing all projects. Enclosed with the letter will be copies of the Park Service or Forest Service approved burning plans for each planned project. A map of the burn and immediate surrounding area must accompany each plan.
3. The application and the Park Service or Forest Service plans will list the following:
 - a. Approximate date the project will start.
 - b. Location of project by sections, townships, or ranges.
 - c. Approximate elevation of project.
 - d. Aspect of any slopes.
 - e. Description of fuel to be burned.
 - f. Prescribed conditions for fire (e.g. time of day, fuel moisture, weather).

4. Each forest as part of the application will provide the Bureau with one emergency or 24-hour telephone number.
5. Each forest will notify the Bureau when a project planned starting date is later changed. Notification will be by telephone. Any other changes, such as fuel type, duration of burn or location, should be included in this notification.
6. The determination to allow burning will be made on a day-by-day basis. It is the responsibility of each park or forest to telephone the Bureau for such a determination. Large fires and those that continue during nighttime hours will require special forecasts made by the national weather service, the Department's meteorologist, or by the permittee if forecast procedures are approved by the Department. On site meteorological measurements by the permittee may be required as inputs to dispersion forecasts and smoke management during the burn.
7. Once each year, on or before December 31, the Forest Service or Parks Service shall submit to the Bureau a report outlining the progress of research and development concerning the effects of forest burn programs on air quality. Such report shall include, where applicable, innovations in the management of prescribed burning using meteorological data, as well as special burning methods, or innovative equipment. Alternatives to burning shall also be considered. Research as to cost effectiveness of the various methods should also be included.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-603 renumbered without change as Section R18-2-603 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-603 renumbered to R18-2-803, new Section R18-2-603 renumbered from R18-2-403 effective November 15, 1993 (Supp. 93-4).

R18-2-604. Open Areas, Dry Washes or Riverbeds

- A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.
- B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
- C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational,

institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and three-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

- A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.
- B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

- A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.
- B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.